

**COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES
PUBLIC HEALTH - DISEASE CONTROL PROGRAMS**

VETERINARY PUBLIC HEALTH AND RABIES CONTROL

Foot-and-Mouth Disease Hangs On In Europe

Over 1,200 cases of foot-and-mouth disease (FMD) have been confirmed in Europe since it was first detected in pigs at a slaughter house in England eight weeks ago. The number of people fighting foot-and-mouth disease in the United Kingdom and other countries has increased dramatically (table 1). The task force is destroying over a million domestic animals in Great Britain.

Great Britain's Team Fighting Foot-and-Mouth Disease	
Military troops	1,842
Veterinarians	1,522
Temporary animal health officers	650
Slaughterers	457

Table 1. Over 4,000 officials are fighting the foot-and-mouth disease epidemic in Great Britain as of 4/10/01

Chinese Connection Downplayed

Agriculture Minister Nick Brown played down the role that a Chinese restaurant may have played in the foot-and-mouth outbreak. His department had previously highlighted illegal imports of meat from China as the most probably source of the disease, the reporting of which resulted in a 40 percent fall in the revenue of Chinese restaurants, many of which received racist phone calls.

Pastures Turn to Quagmires

Healthy livestock are suffering due to the movement restrictions brought in to halt foot-and-mouth. Usually, livestock such as sheep would be moved from a paddock once they had grazed out its grass. The animals would be taken to a fresh pasture, allowing the original field to recover. Since foot-and-mouth was detected, some livestock have been confined to a single paddock, churning its turf into thick mud. In the current foot-and-mouth crisis, any farmer wanting to move his livestock from one field to another across a road must seek written permission from the government. This restriction is intended to halt the spread of the disease, but many farmers and agricultural experts say the rigid application of this rule is putting the welfare of healthy animals at risk. People wonder how long can animals safely remain in one field.

Epidemic Threatens All of Britain

The foot-and-mouth epidemic is threatening to engulf the whole of Britain after the virus spread 40 miles from the nearest case. The biggest jump since the crisis began. The spread a day after the virus had made its biggest previous movement - 30 miles to the Scottish Borders. The size of the jump shattered the British government's claims that it was beginning to get on top of the disease and horrified officials at the Ministry of Agriculture. The Prime Minister has expressed concern at the incompetence and lack of knowledge of some officials at the Ministry of Agriculture. The steady increase in cases suggests the UK may fighting the disease for some time (figure 1).

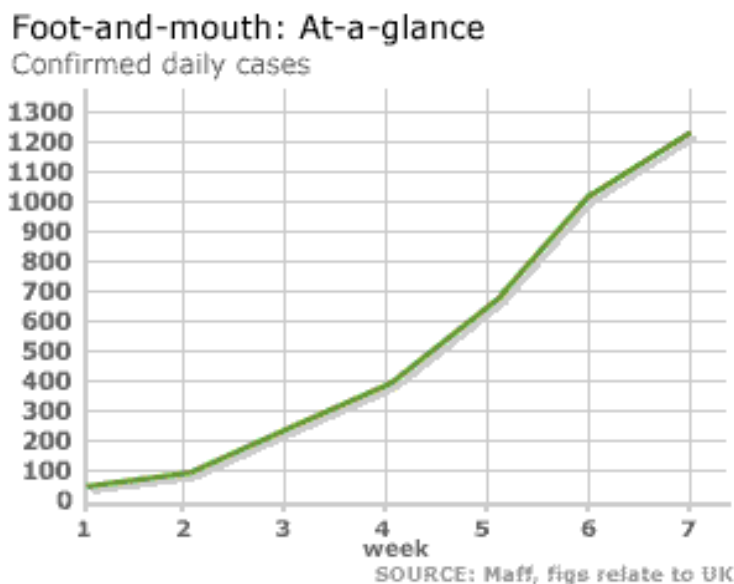


Figure1 The number of confirmed FMD cases has continued to rise during the past seven weeks despite control efforts .

Dutch Foot-and-Mouth Leaps 85 miles

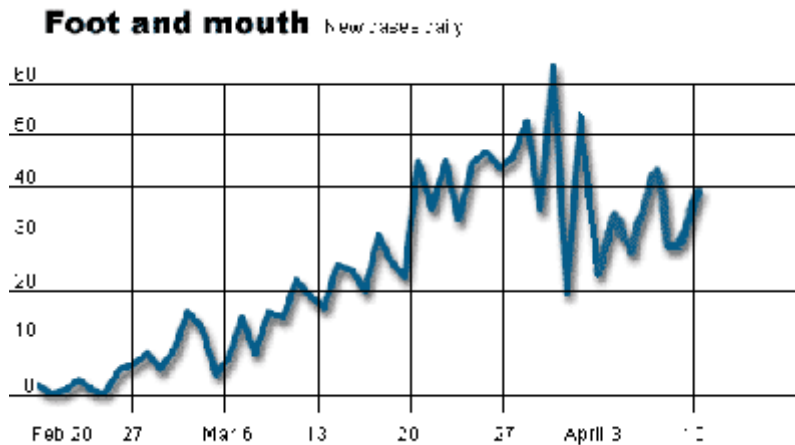
A new case of foot-and-mouth disease was confirmed on 4/11/01 in the Netherlands, in a remote region which has so far been unaffected by the infection. The dairy farm is 85 miles from the area in the center of the country where all the other 21 confirmed cases in the Netherlands had previously been confined. The source of the disease at the dairy is unknown. Around 3,000 cows and several thousand sheep within a two kilometer radius of the farm will be destroyed.

Farmers in previously affected areas have bitterly opposed government culls. At least 16 people have been

arrested trying to resist the slaughter. Angry Dutch cattle traders used around 20 lorries to block access to an airport. Passengers were allowed to enter the airport on foot. Other protests were staged earlier by cattle traders angry at tough restrictions on the movement of animals.

New Cases Daily

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(figure 2).
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number of new cases of foot-
mouth disease varies daily
Europe is hoping to have the
under control during the next
However, the British
nt is under a rash of criticism
handling of the current

Figure 2 On April 11, 2001 there were 1,233 confirmed cases in the United Kingdom.

Fatal Delay

The British government delayed for a week before accepting the advice of scientists the end of February that the foot and mouth epidemic was out of control and before calling in the Army. Ministers and officials at first ignored independent epidemiologists who offered their help shortly after the outbreak was announced and who could have warned that the initial policy was allowing the disease to spiral out of control. The decision to play down the advice of the scientists went directly against the report of the inquiry into the 1967-68 outbreak which said epidemiologists had to be on standby to study the outbreak from the start. The

Government also ignored an Army report into the 1967-68 crisis which warned that even in the event of a small outbreak, the Army should be brought in immediately "to ensure it did not develop into a major problem".

Mad Cow Disease Drained Resources

The huge drain of resources caused by mad cow disease or bovine spongiform encephalopathy (BSE) was blamed for the delay in predicting the spread of foot-and-mouth disease. The Ministry of Agriculture had purchased a computer software program (EpiMAN) to help curb animal epidemics. Nevertheless, the system was not functional in the days after the first case was confirmed on February 20 of this year. Professor Roger Morris, of Massey University, New Zealand who was working to set up the system said: "This outbreak is a timely reminder that the serious cuts in veterinary resources in recent years in many countries can cost very dearly over a short time."

Mass Cull Contaminates Water

A government agency investigated the first Category 1 water pollution incident connected to the foot-and-mouth crisis. Hundreds of fish were killed after disinfectant used during a cull of cattle leaked into a spring. The incident is the first evidence of the serious environmental damage experts believe the mass cull of cattle and sheep may create if it is not handled more carefully. An Environment Agency spokesman said that there had also been a number of more minor pollution breaches which had been caused by blood and animal waste leaking into rivers.

The Government was criticized over the plans to bury tens of thousands of sheep and cattle after it was revealed that a similar policy in the United States had led to an environmental disaster. Up to a million chickens, pigs and cattle were buried in pits in North Carolina after Hurricane Floyd wreaked havoc in 1999. The policy has led to contamination of thousands of wells which the state relies on for its water supply. Levels of illnesses in the local population have also soared.

The first evidence that the burial program was facing serious environmental problems came when the Ministry of Agriculture admitted that it would have to dig up the carcasses of almost 900 sheep and cattle because they had been disposed of in the wrong site. The carcasses had been buried a few meters away from a fresh water spring at Tow Law, Co Durham, despite orders from the Environment Agency that the area should not be used.

Some Farmers Against the Cull of Normal Animals

British officials are concerned that farmers told their animals must be slaughtered because of infection on neighboring farms are exercising their right to appeal against culling orders as a matter of course. This would jeopardize the government's effort to cull livestock on infected farms within 24 hours and on neighboring land within 48 hours. The government reports that most farmers are observing the rules, but there were people

who had "unthinkingly and inadvertently spread the disease". Citizens complained that Ministers were trying to take the heat off themselves by unjustifiably blaming farmers for spreading foot and mouth disease, a National Farmers Union official said.

Farmer Accused for Moving Sheep Illegally Received Threats

A man accused of spreading disease by moving sheep illegally received threats. The accused farmer, Mr. Dickerson reported, "You would have to be a total idiot to move sheep at a time like this. We're losing all our stock and now we have to put up with these rumors and threats. It isn't fair to me, my wife or my kids."

Police Investigate Farm Fraud

Police are investigating cases of alleged compensation fraud and illegal sheep movement by farmers in the West Midlands. Police are looking into allegations that some farmers are flouting the foot-and-mouth regulations and attempting to cash in on the crisis. This comes after farmers were urged to do all they could to halt the spread of foot-and-mouth disease between farms as cases were discovered at sites isolated from previously infected areas.

Virus Spreads as Calls for Vaccination Grow

A private company has been asked by the Ministry of Agriculture to train hundreds of people in Scotland to vaccinate animals. A team of people from the Scottish Agricultural College is recruiting up to 225 people and the first contingency vaccination exercise took place where there have been more than 130 outbreaks so far. FMD vaccines are killed virus preparations. Calls for vaccination in Britain have not yet been supported by Tony Blair.

Vaccination Okayed for Zoos

Zoos are to be allowed to vaccinate rare breeds of animal against foot-and-mouth disease by Ministry of Agriculture after a ruling by European veterinarians that animals can be vaccinated without Britain losing its official "disease-free" status.

United States's Approach to FMD Outbreak

In response to the threat of disease outbreak in the U.S., the Department of Agriculture (USDA) may quickly vaccinate thousands, or even millions of livestock. This is a departure from the view in Europe where thousands of animals are being slaughtered. National officials fear that they wouldn't be able to slaughter animals and burn the carcasses fast enough to prevent the spread of the disease during an outbreak because most U.S. farms are so vast. The vaccine is simple to administer in the animal feed, and it acts quickly. However, vaccinating the animals is a temporary solution as all of the vaccinated animals would eventually

need to be destroyed because the available vaccines once administered do not make it possible to distinguish a vaccinated animal from one that's been exposed to the disease.

The North American Foot-and-Mouth Disease Vaccine Bank

The North American FMD Vaccine Bank is housed at the USDA's Foreign Animal Disease Diagnostic Laboratory at Plum Island Animal Disease Center. Mexico and Canada are also members of the Vaccine Bank. It stores different types of concentrated, inactivated FMD virus antigen at ultra-low temperatures over liquid nitrogen. If necessary, these scientists can isolate and identify an FMD serotype from a field sample in as little as four days. The North American FMD Vaccine Bank can obtain hundreds of thousands of doses of FMD vaccine within days. Animals that receive the vaccine usually develop some degree of protection against clinical signs of FMD within eight days.

Emergency vaccination can play an important supporting role in the control of FMD outbreaks in FMD-free countries such as the United States. Vaccination can help contain the disease quickly if it is used strategically to create barriers between infected zones and disease-free zones. If USDA officials were to determine that FMD vaccinations should be administered to U.S. livestock in response to an FMD outbreak, USDA officials would collaborate with State and local officials to determine vaccination zones, and they would work together to inform livestock producers and the general public of the necessary quarantines and vaccination procedures. USDA scientists at Plum Island Animal Disease Center continue to develop and experiment with novel biotechnology to improve the FMD vaccine.

USDA Increases Measures to Guard Against FMD

In recent weeks, USDA has stepped up measures to guard against foot-and-mouth disease. USDA sent a team of experts (40 federal, state and University officials) to the European Union to monitor, evaluate and assist in containment efforts. They have also heightened alert at ports of entry. This includes placing additional inspectors and dog teams at airports to check incoming flights and passengers. USDA has also enlarged its public education campaign that includes additional signage in airports, public service announcements, information hotline, website, and other tools to inform the public about this important issue and steps they can take to prevent it from entering the United States.

California Actions

The California Department of Food and Agriculture (CDFA) depends on counties to keep them abreast of livestock populations at the local level. In many California counties, agricultural commissioners focus on crops and livestock. However in Los Angeles County, animal diseases are the responsibility of the Director of Health Services (Title 10, Division 2 - Animal Health).

The governor has called for an emergency management FMD infra-structure to be developed. Various agencies within California and the livestock industry will have input. A draft of the proposal is under development. An exercise regarding how to rapidly depopulate the State's the largest cattle herd in case of

an FMD outbreak is being conducted. Livestock producers are increasing their bio-security on farms. Fairs are being canceled. If not canceled, signs are being posted advising people to their protect livestock. Still, no specific diseases are mentioned at this point.

A CDFA program requires that garbage fed to swine must be cooked. Airport and seaport garbage must be incinerated or steam sterilized. One swine ranch in California has over 10,000 hogs. There are eight licenced garbage feeding facilities in southern California. There has been talk about outlawing garbage feeding California. CDFA is opposed to outlawing garbage feeding since this would prevent people from recycling their waste food.